

Communications Devices on School Buses

Background

- Fairfax County's Public Service radio system is used by County non-public safety agencies and Fairfax County Public Schools (FCPS); the radio devices are in vehicles and support other operational functions (FCPS uses about 50 percent of the Public Service radio devices).
- The Public Service radio system is an older, analog technology that will no longer be supported and will need to be retired in 2018.
- In FY 2016, the Fairfax County Department of Information Technology (DIT) developed a plan for its replacement (which will be funded through the County's General Fund), but continued to research marketplace options and suggestions that arose during the budget process.
- As a result of shifts in the technology industry from analog to digital, rapid expansion in use of broadband, and the challenges that arise from use of aging technologies with components that are discontinued over time, DIT identified alternatives to replacing the Public Service radio system with new technology options that have radio Push-to-Talk (PTT) functionality.
- Such devices operate the same as a two-way radio, but use commercial wireless communications networks (i.e. broadband and internet) and do not require the County to have an independent network and related capital investment.
- DIT is implementing broadband PTT to replace the County's Public Service radio system.

2008 Legislation

- The 2008 General Assembly (GA) enacted legislation prohibiting school bus drivers from using any wireless telecommunications device, whether handheld or otherwise, while driving a school bus; however, the legislation specifically allows the use of two-way radio devices as an exception.
- This prohibition is specific to school bus drivers, and does not restrict implementation of PTT for County agencies.
- At the time, the County supported this legislation (HB 1218 (Bowling, Amundson, Valentine and Watts)/SB 136 (Stuart)) as a safety measure.
- Since the enactment of this legislation, significant changes in technology have led to the creation of devices that use broadband, but operate in the same manner as radios from the perspective of driver distractibility, which was the key issue in HB 1218/SB 136.
- This illustrates the challenge of including descriptions of specific devices in state code as technology evolves rapidly, potentially hindering the timely deployment of new technologies that could improve operations, provide efficiencies, increase safety, and generate significant cost savings.

Use of New Technology on School Buses

- DIT has been collaborating with FCPS' Transportation Office to assess the operational impacts of using the new communications devices to replace the legacy, analog radio system on school buses.
- The new communications devices would be mounted in a secure lockbox cradle, and would be configured so that school bus drivers could not use the device to make or receive phone calls or texts, browse the internet, or download or use any other application on the device, as is the case with the legacy radios.
- School bus drivers would connect with a dispatcher by using a hand-held microphone (similar to a palm microphone used with two-way radios), pressing a single-button remote, or utilizing an optional hands-free foot pedal; in essence, they would be using the new devices in the same way they use two-way radio devices (other school districts, including Cobb County in Atlanta, Georgia, use such systems).

- The benefits of replacing two-way radio devices with broadband-based devices on school buses include: nationwide network coverage (the current radio system does not provide coverage outside of the County, and school buses often leave the County for field trips and other events); less background noise (operators can connect directly with drivers instead of the current method of broadcasting a message meant for one driver to all drivers on the channel); and, potentially significant cost savings (DIT has started to analyze potential savings from not owning and operating two independent radio systems, and staff are working with FCPS to estimate potential cost savings of deploying PTT on school buses).
- State regulations require the Virginia Department of Education (VDOE) to approve any device used on a school bus, and in early 2016 VDOE raised legal concerns about a potential pilot project for such technology.
- VDOE's concern was that a broadband system would be in violation of the 2008 prohibition on use of wireless telecommunications devices by bus drivers, as only two-way radios are specifically exempt (the Virginia Office of the Attorney General has concurred with this interpretation), even though, as previously mentioned, school bus drivers would interact with the PTT devices in the same way they interact with two-way radio devices.
- In Virginia, a legislative change is needed to implement a new technology like PTT on school buses.
- It is likely that legislation will be considered by the 2017 GA.